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What Motivates Crowdsourcing Contributors? A Cross-Platform Comparative Analysis

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Completed Research Paper

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Abstract

The crowdsourcing business model has gained increasing popularity over the last years. When requesters (companies, institutions or individuals) crowdsource tasks, they place them on a platform where contributors can view and complete them. This study assesses what factors motivate contributors to complete crowdsourcing tasks and whether and to what degree these factors differ across crowdsourcing platforms. This study compares the results of quantitative surveys of contributors on two crowdsourcing platforms: RapidWorkers and Amazon Mechanical Turk.

The results show that contributors on both platforms are motivated by payment and by indirect feedback from the job. However, contributors on RapidWorkers are also motivated by enjoyment-based factors, whereas contributors at Mechanical Turk are also motivated by community-based factors and delayed payoffs. Thus, the contributors at RapidWorkers tend to be more extrinsically motivated, while the contributors at Mechanical Turk tend to be more intrinsically motivated.

Keywords: Crowdsourcing, Motivation, RapidWorkers, Amazon Mechanical Turk

Introduction

Crowdsourcing, a working arrangement in which companies or individuals post tasks of varying sizes and complexity on a marketplace which can be fulfilled by an indefinite group of contributors, has gained popularity steadily over the last years (Durward et al. 2016) and has proven a viable sourcing option (Love and Hirschheim 2017). Two platforms dominate today's market: RapidWorkers and Amazon Mechanical Turk (MTurk). Both platforms offer a wide range of tasks (for the users who work, aka crowdworkers or *contributors*), as well as a broad pool of contributor experience (for the users how provide work, aka *requesters*). Both marketplaces are established players which have been active for several years.

The scope of tasks on these platforms is quite wide. From the founding purpose of software development to marketing panels and even quantitative scientific research (Jia et al. 2017; Lowry et al. 2016), all sorts of tasks can be requested and are likely to be delivered by crowd contributors (Steelman et al. 2014).

The breadth of capabilities and experience of crowdsourcing contributors is impressive. Not only students wanting to earn additional income, but also experienced managers and people of all age contribute on these platforms. Given this range, monetary considerations are likely not the only factor

motivating contributors. Kaufmann et al. (2011) investigated motivation on the then dominant platform MTurk. Since then, RapidWorkers has emerged as a powerful competitor, raising the question: *Do the factors that motivate contributors on MTurk differ from the factors that motivate contributors on RapidWorkers?*

This paper investigates the motivational factors that positively affect the intention to complete tasks on each platform using quantitative surveys. The results of both surveys are analyzed using structural equation modelling to identify statistically significant differences.

Our findings show that contributors on both providers platforms are motivated by the previously identified factors payment and feedback from the job (Kaufmann et al. (2011)). In addition, RapidWorkers contributors are also motivated by enjoyment-based factors, whereas the workers at MTurk are motivated by community-based factors and delayed payoffs.

The remainder of this paper is organized as follows: After an introduction to the relevant concepts and a review of the literature, the research model is developed and the research method explicated. Following that we present the results of the statistical analysis and their implications. Finally, the paper states the limitations of the study, suggests further research and draws conclusions.

Theoretical background and Literature Review

Crowdsourcing

The concept “crowdsourcing” was introduced by the American journalist Jeff Howe in the technology and business magazine *Wired* (Howe 2006). The term combines crowd and outsourcing and Howe described it as “the act of taking a job traditionally performed by a designated agent (usually an employee) and outsourcing it to an undefined, generally large group of people in the form of an open call.” Therefore, crowdsourcing is posing a specified task to an undefined network of people who process the task, submit a product, or solve a problem. The origin of crowdsourcing lies in the open source movement that began in the late 1980s as programmers began to see the Internet as a common platform for developing software like, for example, the GNU-Project and the operating system Linux. The collectively developed free software with open code is developed by unpaid contributors (Pilz and Gewald 2013). As the World Wide Web developed into the collaborative Web 2.0, the cornerstone was laid for modern crowdsourcing. Across platforms like Wikipedia, YouTube and Instagram, users are no longer just consumers, but rather they also interact and produce content. Following suit, crowdsourcing platforms have also gained popularity. Howe (2008) distinguishes four primary categories of crowdsourcing: crowd wisdom, crowd creation, crowd voting and crowdfunding.

Crowd wisdom: Groups have more knowledge than individuals. Each individual possesses different abilities, knowledge and talent gathered at different origins and through different experiences. Bringing together many individuals into a large group creates a collective forum for leveraging individual differences, experiences and abilities to develop new creative ideas and solutions, discover new opportunities, and create new knowledge (Howe 2008). Examples of crowd wisdom include collaborative wikis and joint decision-making and assessments of present and future events. The largest and best known example is Wikipedia, where users can retrieve and create articles.

In **crowd creation**, the crowd becomes “productive” by generating ideas, developing designs, making concepts or following instructions. A popular crowd creation website is Amazon’s "Mechanical Turk" (MTurk). Institutions, individuals and companies can offer tasks on this platform, which are selected and conducted by the crowd. Typical tasks include processing photos or videos, cleaning or verifying data, collecting information and processing data. Crowd creation can be further subdivided into micro- and macrowork tasks. **Microwork** tasks are small tasks that together result in a larger work package. Each task requires little time to process and offers a very small monetary incentive. The users may not need special qualification to accomplish the tasks (Grier 2013). **Macrowork** tasks need specialized skills or experience and require several hours or days of work. Payment for macrowork tasks can be much higher than for microtasks. Macrowork task contributors can be writers, editors, web designers,

programmers, graphic artists, proofreaders, accountants or people with other professional abilities. (Grier 2013).

Crowd voting uses the crowd's judgment to organize, filter and rate contents such as music, videos, news article, and consumer goods. This type of crowdsourcing is the most popular form and attracts the highest number of participants. Common examples include product evaluations, such as star rating on Amazon, and the like buttons on Facebook, YouTube, Instagram, Twitter and many other webpages. Another common example of crowd voting is telephone voting on reality TV shows (Howe 2008).

Crowdfunding allows Internet users to fund certain Crowdfunding projects, replacing a bank or other financial institution (Howe 2008). The manufacturers benefit from the donors by receiving product feedback and the donors are often given early access to the product. Popular platforms using crowdfunding include Indiegogo and Kickstarter.

In summary, the crowdsourcing variants differ not only in terms of content, they also require varying levels of cost and contributor time investment. (Leimeister 2012)

Motivation

Ryan and Deci (2000a) defined **intrinsic motivation** as doing an activity for one's own satisfaction. If a person is intrinsically motivated, she acts out of enjoyment or because it is a challenge rather than in response to external pressure, prods or rewards. Lindenberg (2001) identifies two types of intrinsic motivation: enjoyment and obligation/community-based. Hackman and Oldham (1974) developed the "job characteristics model", which differentiates five characteristics of tasks: skill variety, task identity, task autonomy, task significance and feedback on performance. They posit that the more varied a task is, the more important the task for the contributor is, the more independently she can make decisions and the more concrete the feedback on performance is, the more intrinsically motivated she will be to complete the task. Intrinsic motivation can be subdivided into: **Enjoyment-based motivation**: The expectation that something will be fun or enjoyable is at the core idea of enjoyment-based intrinsic motivation. The person is generally enthusiastic about completing a task, for example because she likes to solve problems or to learn new things (Ryan and Deci 2000b). **Community-based motivation**: Acting on the basis of principle is key to community-based motivation Lindenberg (2001). Group members are socialized into the group to act appropriately and consistently with the norms of the group or community, creating a normative frame of action.

Extrinsic motivation: Actions performed because they lead to a reward are extrinsically motivated (Ryan and Deci 2000a). This reward can be an **immediate payoff**, such as financial or non-financial payment or reward (e.g. access to completed results), or a **delayed payoff**, such as increased career advantages or an improvement in one's skills or visibility to potential and current employers (i.e. job market signaling) (Lakhani and Wolf 2003). The extrinsic side also comprises **social motivation** when the values, obligations and/or norms of other people are followed to achieve common goals (Deci and Ryan 1985).

Research Model

To assess what factors motivate contributors to work on crowdsourcing projects, the model (see Figure 1) analyzes intrinsic and the extrinsic motivation, as proposed by Deci and Ryan's self-determination theory (Deci and Ryan 1985). This model focuses on two types of intrinsic motivation: enjoyment-based motivation and community-based motivation, plus extrinsic motivation in the form of financial reward, expected career benefits and expected social benefits.

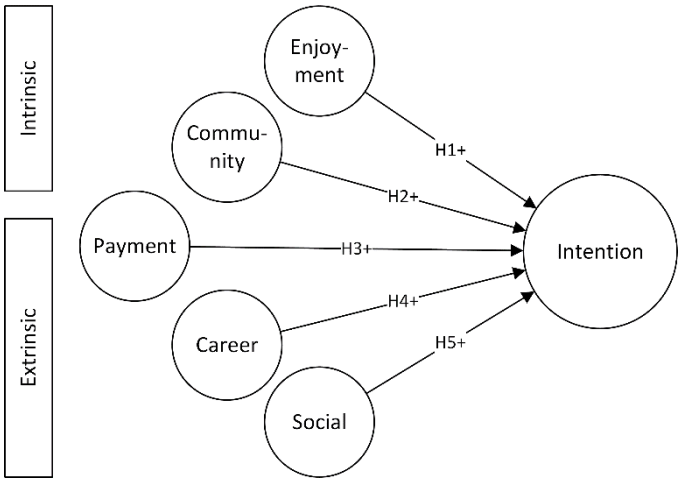

Figure 1: Research Model

Enjoyment-based Motivation

Enjoyment-based motivation can be subdivided into five factors, which can be summarized as *fun in the processing*. **Skill variety** is the degree to which various skills and talents are used to solve a specific task. The more appropriate the capabilities and skills of the contributor are, the more likely she will be motivated to choose a specific task (Hackman and Oldham 1974; Kaufmann et al. 2011). **Task Identity** describes the degree to which a contributor perceives the whole of a specific task. The more identifiable a task is, the more motivated the contributor will be, for example, to do a job from start to finish with a visible outcome (Hackman and Oldham 1974; Kaufmann et al. 2011). **Task Autonomy** describes the degree of freedom, creativity, and independence a contributor is permitted in fulfilling a task. The more freely a contributor can work on a task, the more motivated she will be (Hackman and Oldham 1974). **Direct Feedback on Performance** is when the contributor receives direct and clear information about how effectively she completed the task (Hackman and Oldham 1974). **Pastime** describes workers fulfill a task to pass time and avoid boredom, such as when she has nothing better to do (Brabham 2008; Ipeirotis 2010).

H1+: Enjoyment has a positive effect on the intention to work on a crowdsourcing task.

Community-based Motivation

Motivation based on community comprises two factors. **Community Identification** is when the contributor adapts to the norms and values of the community to become a part of it, acting on the basis of principles (Lindenberg 2001). In this case, the contributor feels obliged to behave appropriately in compliance with community norms (Lakhani and Wolf 2003). **Social Contacts** can be entered when contributors can communicate with each other, when there are community principles, and when the worker identifies with the community. An example is when a contributor is motivated to complete a task by the desire to meet new people on the platform (Brabham 2008; Brabham 2010).

H2+: The community has a positive effect on the intention to work on a crowdsourcing task.

Payment (Immediate Payoffs)

The motivation of immediate payoffs is to complete tasks to obtain an advantage or reward (Ryan and Deci 2000a), i.e. a financial or non-financial payment or advantages associated with the result itself (Lakhani and Wolf 2003).

H3+: Payment has a positive effect on the intention to work on a crowdsourcing task.

Career Opportunities (Delayed Payoffs)

In the case of the delayed payoffs, the motivation and the goal is to attract the attention of the environment by completing tasks (signaling) and/or to improve one's skills in order to generate an advantage for the future (Lakhani and Wolf 2003). **Signaling:** A worker demonstrates his presence by completing tasks and increases his chances of being seen by a potential future employer (Lakhani and Wolf 2003). **Human Capital Advancement:** A worker performs tasks to improve his skills in order to obtain a better or a new job. Also it can be important for task or other material which be done in the future. (Lakhani and Wolf 2003)

H4+: Career opportunities have a positive effect on the intention to work on a crowdsourcing task

Social Motivation

Social motivation relates to the values, norms and obligations in the larger community as well as to feedback on performance. **External Values** are present if a contributor's own actions comply completely with the values of the larger community, as assessed by self-examination or when new regulations are developed in accordance with the values and needs of others. "The more one internalizes the reasons for an action and assimilates them to the self, the more one's extrinsically motivated actions become self-determined." (Ryan and Deci 2000a). **External Obligations and Norms** is when someone is motivated to take an action in order to satisfy an external desire or to receive an external reward. Typically, these tasks are transferred and directed from an external perceived locus (Ryan and Deci 2000a). When a contributor receives **Direct Feedback on Performance** during or after the performance by another person (Hackman and Oldham 1974)**,** the contributor is motivated to process the task satisfactorily.

H5+: The social environment has a positive effect on the intention to work on a crowdsourcing task.

Intention to Work on a Task

Crowdsourcing providers post small tasks like content generation, transcription, image labeling, or web research to the members of the crowd by using a crowdsourcing platform. Contributors can accept that proposal or ignore it. As there is no contractual agreement, the contributor always has the freedom to decide whether or not to complete a crowdsourcing task. Thus, the dependent variable of the research model is the intention to work on a crowdsourcing task.

Research Method

Survey design and data collection

In our 55-question survey, each construct was measure with three items. It also contains eight demographic questions and eight further questions about intention and intrinsic and extrinsic motivation. A seven-point Likert scale was used for the constructs, task completion and the intrinsic and extrinsic motivation questions. The first question for each of the 13 constructs is measured with a five-point Likert scale. The survey design is based on the work of Kaufmann et al. (2011). The enjoyment-based intrinsic motivation questions were adapted from Hackman and Oldham (1974).

RapidWorkers is a crowdsourcing service with more than 100,000 contributors where employers launch campaigns to attract contributors to complete tasks. RapidWorkers posts reviews to websites and blogs, promote sites, and creates followers or votes on Twitter, Facebook and other social media websites. Contributors earn money for finished jobs and can register from any country. The survey was posted as a task on RapidWorkers and online for five days, from 27 to 31 January 2017. The participants were paid a fee of 0.30 USD if they successfully participated in the survey. 221 records were stored

during this period, of which 18 were incomplete and 20 were not completed within the 5-minute time limit, resulting in 183 valid responses.

MTurk is a crowdsourcing internet marketplace in which companies and individuals (called "requesters") can pose tasks (called "HITs" = Human Intelligent Tasks) to contributors (called "workers") online. MTurk summarize its tasks as data cleansing, categorization, sentiment, tagging, create & moderate content and business feedback. Contributors also receive money for fulfilling HITs. Amazon accepts registrations for requestors from the United States, Australia, Canada, France, Germany, the Netherlands and the United Kingdom. The survey was also posted on **MTurk** and was online for six days, from 15 to 20 February 2017 and received 306 responses, of which 94 were incomplete and 17 were not completed within the 5-minute time limit, resulting in 195 valid datasets.

Table 1 below shows the demographic details of the participants of the two surveys.

Table 1: Demographics of the survey respondents

	RapidWorkers	MTurk		RapidWorkers	MTurk
Age			Education		
18-24	32%	17%	Primary school	2%	0%
25-29	32%	31%	Some high school	7%	1%
30-39	28%	38%	Graduated high school	22%	7%
40-59	8%	11%	Some college	14%	9%
>59	0%	3%	Associate degree	9%	5%
			Bachelor‘s degree	34%	47%
Gender			Master’s degree	10%	29%
Male	81%	57%	Doctoral degree	1%	0%
Female	19%	43%	Professional degree	1%	2%
Country			Employment status		
Germany	3%	0%	Unemployed	14%	15%
USA	17%	29%	In school	16%	8%
India	14%	55%	Part-time	26%	27%
Other	66%	16%	Full-time	44%	49%
Annual Income			Membership		
Less than $7,000	21%	25%	Less than 1 week	13%	8%
$7,000 to $14,999	29%	19%	Less than 1 month	22%	6%
$15,000 to $34,999	23%	24%	Less than 3 months	24%	15%
$35,000 to $74,999	13%	18%	Less than 6 months	19%	8%
$75,000 to $124,999	1%	5%	Less than 1 year	10%	18%
$125,000 or more	1%	2%	Less than 2 years	9%	10%
No answer	13%	7%	More than 2 years	3%	36%

Results

RapidWorkers

Figure 2 presents the descriptive results. Payment, an extrinsic motivation, has the highest mean value of all constructs. Task Identity and Indirect Feedback on Performance follow closely. The constructs Community Identification, Pastime, Skill Variety, Direct Feedback on Performance and Task Autonomy are in the medium range. The constructs with the lowest mean values include Human Capital Advancement, Social Contact, Signaling, External Values and External Norms and Obligations.

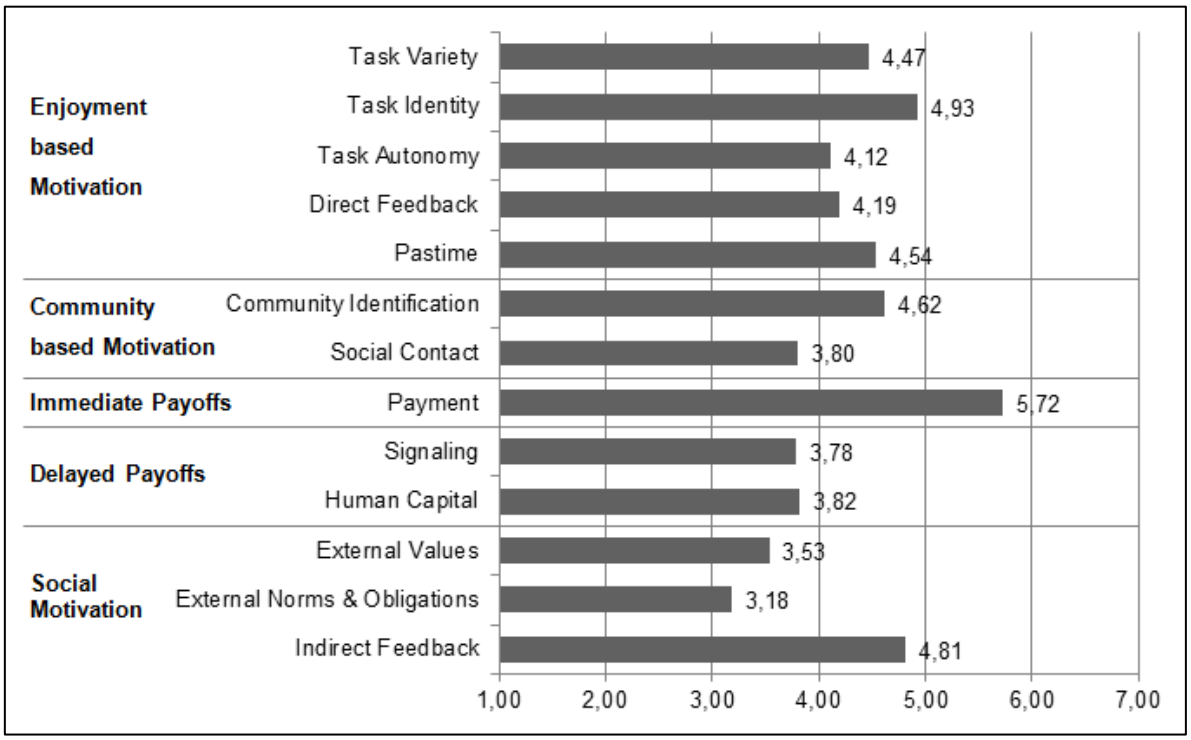

Figure 2: RapidWorkers - Mean Construct Values

Not surprisingly, Immediate Payoffs is the most significant motivation to fulfill a task. Of the remaining extrinsic motivation constructs, only Indirect Feedback on Performance has a mean value over four (i.e. the "neutral" position on the 7-point Likert scale). The rest of the extrinsic motivation constructs are lower than four. All other extrinsic motivation factors are lower than the intrinsic motivation factors expect for the Social Contact construct, which has a score of 3.80 and is therefore the lowest value from the intrinsic motivation factors. A significant difference can also be seen in the Community-based Motivation between Community Identification and Social Contact. Overall the intrinsic motivational factors dominate, with only one construct below four and the Enjoyment-based Motivation a second driving force.

Amazon Mechanical Turk

The highest mean value of all constructs has the extrinsically motivated Payment (as depicted in Figure 3 below), followed closely by Community Identification, Signaling and Human Capital Advancement. In the middle range of all values are the constructs Social Contact, Task Identity, Skill Variety and Indirect Feedback on Performance. The constructs with the lowest mean value are in descending order

Task Autonomy, Direct Feedback on Performance, Pastime, External Values and External Norms and Obligations.

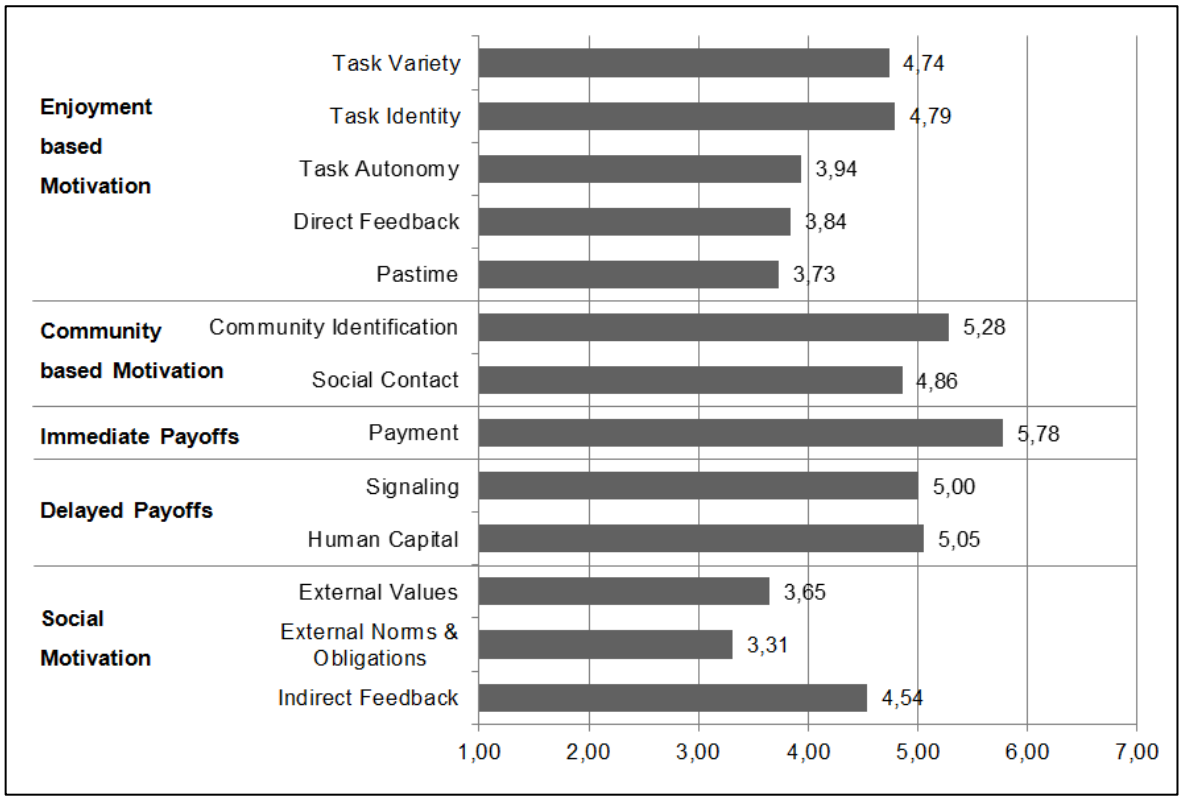

Figure 3: MTurk - Mean Construct Values

Payment has the highest mean value, 5.78. The extrinsic motivational factors Signaling and Human Capital Advancement also have a value of 5 and higher. Indirect Feedback on Performance also has higher-than-neutral mean value. The two social motivation constructs scored the lowest of all constructs. External Values and External Norms and Obligations mean values of 3.65 and 3.31 respectively. After Payment, Community Identification has the second highest mean value, 5.28. Social Contact has the second highest value among intrinsic motivations and is also a part of Community-based Motivation. The Enjoyment-based Motivations have the lowest values of the intrinsic motivated constructs. Skill Variety with a mean of 4.74 and Task identity with 4.79 have values above the neutral value. Task Autonomy, Direct Feedback on Performance and Pastime are under the neutral value.

Comparison of platforms

Not surprisingly, Immediate Payoffs has the highest score on both platforms. Also, very similar in both surveys are the values of the category Social Motivation. The constructs Action Significance by Values and Action Significance by Norms and Obligations are also the constructs with the lowest mean values in both platforms. Aside from Payment, Indirect Feedback on Performance is the only extrinsic construct with a high mean value in the RapidWorkers survey. The mean value of all other intrinsic motivations are higher than those of the extrinsic motivations. Enjoyment-based Motivation is higher in the RapidWorkers survey than in the MTurk survey. But in Community-based Motivation and the Delayed Payoffs, the MTurk survey has higher mean values than the RapidWorkers survey.

This leads to the conclusion that RapidWorkers contributors are more motivated by intrinsic factors than extrinsic factors. In contrast, MTurk contributors are motivated by both intrinsic (Community-based Motivation) as well as extrinsic (Immediate and Delayed Payoffs) factors.

Assessment of the Models

We evaluated the data using a structural equation modelling technique and partial least squares (calculated with SmartPLS 3.0 (Ringle et al. 2015)). Internal consistency was checked with satisfactory results. Cronbach's coefficient alpha (α) is used to measure the degree of construct indicators to latent variables (Cronbach 1951; Urbach and Ahlemann 2010). All constructs met the minimum criterion of the alpha value greater or equal than 0.6 (Ohlwein 1999).

In order to validate the measurement model, we also looked at outer loadings, composite reliability and average variance extraction. The convergence criteria are measured by the composite reliability and the average variance extracted for each latent variable. The threshold of the composite reliability is 0.7 and for the average variance extracted 0.5 (Bagozzi and Yi 1988). The models of both surveys have values above the threshold of composite reliability and average variance extracted. Since the above-mentioned quality criteria are met, the reflective measurement model is considered reliable and valid. (Urbach and Ahlemann 2010)

After establishing a reliable estimation of the reflectively measured constructs, we analyzed the structural model. The next section discusses the evaluation of the path coefficients, where values close to 0 indicates a weak influence and values close to 1 or -1 indicate a strong influence (Nitzl 2010). Figure 4 depicts the model results.

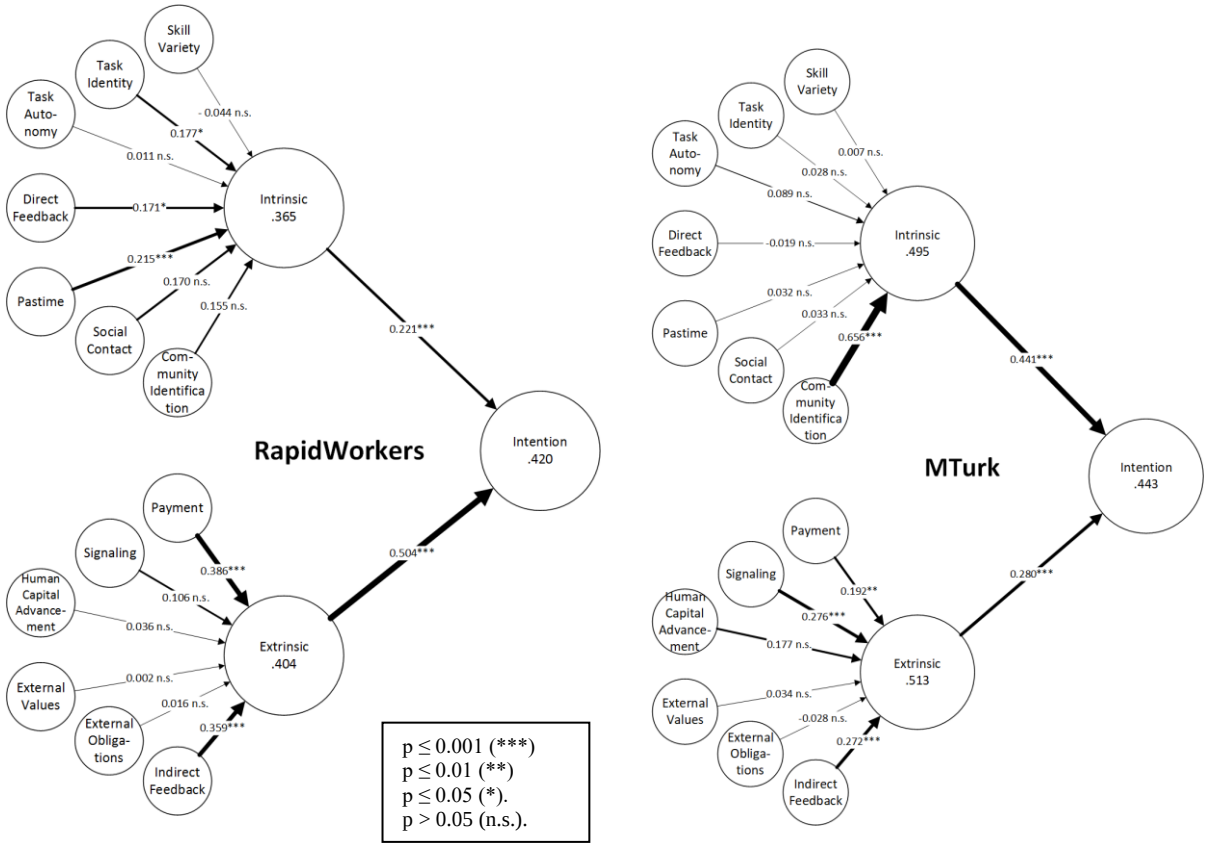

Figure 4: Model Results for RapidWorkers and MTurk

RapidWorkers

The RapidWorkers model show seven significant and eight non-significant path coefficients. **Skill Variety**, an enjoyment-based motivation, has a weak influence on contributor motivation (a non-significant path). This is likely because the tasks on RapidWorkers are often simple and do not need any special skills, abilities or talents. The enjoyment-based motivation **Task Identity** has a significant path, perhaps because the simple tasks, such as following a Twitter account, liking or sharing posts on

Facebook, visiting websites or participating in surveys, are complete experiences with a beginning and an end. **Task Autonomy** is also not significant, probably because the tasks on RapidWorkers typically require following a precise process, so the contributor has little autonomy to decide how to go about doing the work. **Direct Feedback on Performance** on RapidWorkers is significant, perhaps because contributors have to prove that they have done their task, usually by providing a screenshot of their finished task. This makes it possible for contributors to recognize direct feedback on their performance. **Pastime** has a highly significant path, indicating that RapidWorkers contributors frequently visit the platform to pass time. This conclusion is supported by the low weekly working time on RapidWorkers. **Community Identification** is one of the two community-based motivations. Also Social Contract has a non-significant path, most likely because RapidWorkers does not provide a platform for contributors to interact with the community. On the whole, **Intrinsic Motivation** is significant, although at a relatively low niveau.

Payment is one of two highly significant paths on the extrinsic motivational side. Payment seems to be a very important motivation for contributing to a task and influences how intensively a contributor processes a task. The two delayed payoffs motivators are non-significant. In the case of **Human Capital Advancement**, this is because the tasks are simple and provide a suitable setting neither for improving skills nor for advertising oneself to other community members or possible employers. **External Values** and **External Obligations** are also not significant. This means that it is not important for the members to adhere to values from outside the RapidWorkers community. Likewise, the community members of RapidWorkers are not motivated by other persons to work on this platform. **Indirect Feedback on Performance** is significant. This motivational factor depends on the payment because if a contributor gets poor feedback from the task owner, they do not get paid for their work. On the whole, **Extrinsic Motivation** is significant, showing a strong path coefficient. In summary, contributors on RapidWorkers are predominantly extrinsically motivated.

Amazon Mechanical Turk

The MTurk model contains six significant and nine non-significant paths. **Skill Variety** has a weak influence on contributor motivation and is not significant. Since this path is also weak for RapidWorkers, it is not a differentiating motivator. **Task Identity** also does not significantly and **Task Autonomy** has no effect on the motivation of MTurk contributors. **Direct Feedback on Performance** is not significant probably because there is only limited possibility to check performance and using MTurk as a **pastime** is also not significant. **Community Identification** is the only intrinsic motivator that is significant and has a high path coefficient. **Social Contact**, in contrast, plays no significant role as a motivational factor. Although only one construct shows significance, the community identification seems to be so strong that **Intrinsic Motivation** is not only significant, but also shows a good loading toward intention.

Payment is a very significant extrinsic factor motivating MTurk contribution. Earning money plays an important role in choosing a task and how intensively a contributor processes it. **Signaling** is also a highly significant motivator. Respondent view contributing to MTurk as an opportunity to advertise themselves and their abilities. **Human Capital Advancement, External Values** and **External Norms and Obligations** are not significant. In other words, MTurk contributors are not motivated by external values or by someone else's expectation that they contribute on the platform. **Indirect Feedback on Performance** is the only extrinsic motivational factor that has a highly significant path. This is due to the fact that if the MTurk requester gives negative feedback, the contributor will not get paid. Altogether, **Extrinsic Motivation** is significant, although at a comparatively low niveau. In summary, MTurk workers are more intrinsically than extrinsically motivated.

Comparison of the path models

Both models have highly significant paths from Payment and Indirect Feedback on Performance to extrinsic motivation. The paths from intrinsic and extrinsic motivation towards Intention are also highly significant. The main difference between the two models is on the intrinsic side and the strength of the influence of intrinsic and extrinsic motivation. RapidWorkers contributors are more strongly influenced

by extrinsic factors, whereas MTurk are more strongly influenced by intrinsic factors. On the intrinsic side, RapidWorkers contributors are motivated by enjoyment, while MTurk contributors are motivated by the desire to feel like an important part of the community.

Mean Comparison Test

To determine whether the mean values of the two surveys differ significantly from each other, an independent samples t-test was conducted. For each construct a mean value, standard deviation, T-Value and P-Value were calculated. The hypothesis H0 "mean values are equal" was calculated using SPSS. The t-test shows that seven of the thirteen constructs do not differ significantly across surveys: Skill Variety, Task Identity, Task Autonomy, Payment, External Values, External Norms and Obligations, and Indirect Feedback on Performance. We therefore conclude that these factors have the same influence on the motivation of contributors across both crowdsourcing platforms. In addition, two constructs for MTurk and three constructs for RapidWorkers (Payment, Indirect Feedback on Performance and Task Identity) are also significant in the path-coefficient model.

Significant differences were found in motivation factors Direct Feedback on Performance, Pastime, Community Identification, Social Contact, Signaling and Human Capital Advancement. The significant differences in community-based motivation presumably reflect the lack of a structured way to get in touch with other contributors on the RapidWorkers platform. Another notable difference is that MTurk contributors are more motivated by Delayed Payoffs that RapidWorkers contributors.

Discussion

RapidWorkers

As discussed in the above assessment of the models, three hypotheses of the RapidWorkers research model can be accepted and two hypotheses must be rejected. On intrinsic motivation only, the Enjoyment-based Motivation (H1) can be assumed, as three of the five paths are significant (Task Identity, Direct Feedback on Performance und Pastime) and influence the motivation of a RapidWorkers contributor. Hypothesis H2 (Communication-based Motivation) must be rejected, presumably because RapidWorkers offers no forum for exchanging ideas or getting in contact with other contributors.

On the extrinsic side, two of the three hypotheses can be confirmed. Hypothesis H4 (Delayed Payoffs) must be rejected, but the data supports hypothesis H3 (Immediate Payoffs) and hypothesis H5 (Social Motivation). Contributors only get paid if the requester gives her positive feedback, so the constructs Payment and Indirect Feedback from the Job are directly connected. Both are highly significant and have a strong influence on the motivation of RapidWorkers contributors. If the construct Indirect Feedback on Performance were to be removed, hypothesis H4 would have to be rejected because the remaining two constructs, External Values and External Obligations and Norms, have no significance and do not influence motivation. Thus, hypothesis H4 has to be rejected, too. RapidWorkers contributors are not motivated by the opportunity to advertise themselves or to master new skills.

In conclusion it can be said that RapidWorkers contributors are more motivated by extrinsic (Payment) than intrinsic factors.

Amazon Mechanical Turk

In the MTurk research model, hypotheses H2 to H5 can be confirmed, whereas hypothesis H1 (Enjoyment-based Motivation) must be rejected. Enjoyment has no positive effect on the intrinsic motivation of contributors on MTurk. This is also shown by the low values for the path coefficients and the lack of significance. Hypothesis H2, which also focuses on intrinsic motivation, can be confirmed. This implies that the community has a positive effect on the intrinsic motivation of MTurk contributors. It can also be concluded that contributors want to feel like an important part of the MTurk community and be in contact with other MTurk contributors. The motivation based on the community, with its two constructs, has only one path which is significant and has noteworthy influence on intrinsic motivation.

The construct Social Contact, the second motivational factor of the Community-based Motivation does not play an important role, presumably because contributors can only contact requesters.

On the extrinsic side, all hypothesis (H3 – H5) can be accepted. Payment positively motivates MTurk contributors. Hypothesis H4, stating that career opportunities have a positive effect on contributors' motivation when working on a task, can be confirmed as well. MTurk contributors are motivated by the opportunity to advertise and show off their abilities to other community members and possible employers. The social environment as a motivational factor (H5), like the other two extrinsic motivators, has a positive effect in the processing of a task. This is caused by the relationship between the Indirect Feedback on Performance and Payment, which are directly related because a contributor will not be paid if the completed task receives a negative rating (Indirect Feedback from the Job). In terms of social motivation, the two constructs Action Significance by External Values and Action Significance by External Obligations and Norms, have no significance, so if indirect feedback were removed, the hypothesis would have to be rejected.

Comparison

A structured statistical comparison of the results of the two models shows a clear pattern: RapidWorkers contributors are motivated by the salary they receive (H3) and the time they spend on the task (H1), while MTurk contributors are motivated by Community-based Motivation (H2), in which the users are proud to be a part of it and want to feel like an important part of it. In addition, career opportunities (H4) with the construct Signaling contribute significantly to motivation. In both surveys, the respondents agree that Payment (H3) and Social Environment (H5), especially Indirect Feedback on Performance, have a positive influence on the motivation to process tasks across platforms. As expected, payment is the dominant motivational factor in both models.

Limitations and Further Research

The study is subject to certain limitations. Although a sufficient number of responses were received, the results are not generalizable to all contributors on the MTurk and RapidWorkers platforms. Furthermore, this study presents just a snapshot of the perceptions and thoughts of the respondents. Motivational factors are likely to change over time. Also, RapidWorkers and/or MTurk could change their business model or websites / community management, which would directly influence the behavior, perception and thus motivation of contributors.

Further research may include a longitudinal study tracking the salient motivational factors over time and analyzing changes. In addition, in-depth qualitative research could cast further light on the formation of motivational aspects on the intention to participate in crowdsourcing. Also, future research could test the impact of technological factors and/or the graphical user interface and how these influence the motivation of the contributors.

Conclusion

This study contributes to the field of contributor motivation on crowdsourcing platforms. Data was collected on the platform RapidWorkers, which is mainly used for simple tasks, and on Amazon Mechanical Turk, which has a wider range of more demanding activities. The results show that in both surveys, the extrinsic motivation Payment most positively influences the intention to work on tasks. In terms of social motivation, only the construct Indirect Feedback on Performance has significance as well as sizeable influence. This reflects the fact that payment and indirect feedback on performance are explicitly connected because a contributor does not get paid for a task if they receive a negative evaluation.

On RapidWorkers, another positive factor is the Enjoyment-based Motivation, especially the factor Pastime to overcome boredom. On MTurk, the community-based motivation (especially Community Identification) of feeling like an important part of the community and delayed payoffs in terms of the potential attract the attention of potential employers (Signaling) are additional positive factors.

The mean comparison test also shows that the respondents of both surveys differ not significantly in the two constructs Payment and Indirect Feedback on Performance, which both have positive influence. Significant differences were found in the significant paths of RapidWorkers in Task Identity, Direct Feedback on Performance and Pastime, and in MTurk for Community Identification and Signaling.

In summary, we conclude that RapidWorkers contributors tend to be extrinsically motivated mainly by payment, while MTurk contributors are more intrinsically motivated mainly by community-based factors.

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